

## CENTRAL INTELLIGENCE AGENCY

## INFORMATION REPORT

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SECURITY INFORMATION

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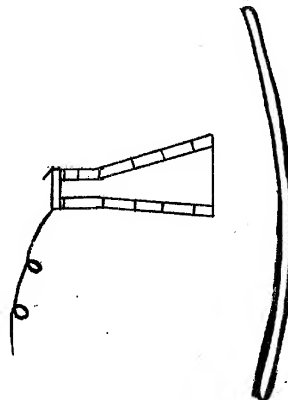
1. Radar development (Kollisionsschutzgeraet) (ZAFT No. K2-35)

- a. The work on the Kollisionsschutzgeraet, the only radar work in Funkwerk Koepenick, is now held up chiefly by lack of klystrons. The Soviet Control Commission (SKK) has had to place a special order for these with Werk "HF".
- b. The SKK has ordered that the apparatus is to be kept as small as possible.
- c. Dr. Erich Schuettloeffel is now designing a new antenna and reflector for the apparatus. Up to now, there has been a partial paraboloid reflector. Dr. Schuettloeffel is working on a complete paraboloid reflector that is to have a diameter of 70 - 80 cms. Apparatus to enable this to move in a horizontal plane can already be seen. Nothing has yet been done (if it is to be done) to make the paraboloid moveable in a vertical plane.

Sketch

(not to scale)

Vertical Cross-Section



25 YEAR  
RE-REVIEW

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- d. The old partial paraboloid is still erected on the tower in the works grounds. This tower is a permanent stone or brick structure, c. 30 m. high, belonging to a linoleum works (or the linoleum drying section of a larger works) formerly on the Funkwerk Koepenick site. No tests have been carried out in the last two months (March or April). None are foreseen in the immediate future.
- e. A permanent magnet for the magnetron has been supplied to the Funkwerk. This was of a Ni-Al-Cu alloy, magnetized on casting. Its origin is uncertain.

#### Navigation equipment

Wilhelm Grimm has been working on the assembly of data on navigational aid systems. An order has now reached the Funkwerk, from the State Planning Commission, that Decca system equipment is to be built, starting this year. Possible sites for a master station and 3 sub-stations (Mutter und 3 Töchter) are now being considered. Grimm's staff have been monitoring the chain with the Funkwerk's very long-wave receiver (Laengstwellenempfaenger). No further details are yet known. 25X1

#### 3. Funkleitfeuer (ZAFT No. K2-33) and Funkfeuer ( No. K2-34)

- a. Funkleitfeuer (radio control beam) is an apparatus for guiding ships in poor visibility. A land-based transmitter has two antennas, switched in alternately. The transmitter is modulated. It will have a wave-length somewhere near the boundary between medium and long waves. Any ship at sea with a receiver on this wave-length will be able to receive the signal.
- b. Funkfeuer (radio-beacon station) is a land-based transmitter on which ships can D/F.
- c. These apparatuses are for Sassnitz and Warnemuende; it is not known which is for which.

#### 4. KN-3 transmitter

Of the two KN-3 5 kw transmitters built by Funkwerk Koepenick, one is to be installed in the YURY DOLGORUKI (formerly the HAMBURG) and the other in the SOVETSKI SOYUZ (formerly the HANSA) which are being rebuilt under reparation orders for the Russians.

#### 5. Sounding devices

- a. Funkwerk Koepenick's Echolot apparatus has a fixed transmitter under the ship in which it is fitted. This cannot be directed.
- b. No apparatus is known which might be really suitable as a harbor entrance underwater sounding device with discrimination of less than 0.5 m. (Hafeneinfahrtsgeraet).

#### 6. Hubertus and Zwilling transmitters

- a. The Zwilling transmitters, situated on the Dammheide, Berlin-Uhlenhorst, are carrying Berlin I or Berlin III radio programs. The transmitters are in two halves (zwei Halbzuege) and on the night of 29 April 1953, the second half was switched in for the first time. The power, on test, was increased to 480 kw. On 30 April 1953, 540 kw was reached, and this was not on full power.

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- b. People are apt to confuse "Zwilling" and "Hubertus". These are, in fact, the same. The proper title for the Berlin-Uhlenhorst transmitters is "Zwilling" (i.e. twins). The name "Hubertus" became attached to the whole site on which "Zwilling" stands because there used to be a well-known restaurant there, the Hubertus Restaurant.

#### 7. Transmitter and receiver development

- a. Dr. Rudolf Kaiser is working on a single sideband 50 kw short wave transmitter. It is thought in the works that this is for 3 ... 24 mcs: these figures cannot be taken as quite certain, however. The transmitter would be for long-distance commercial traffic, e.g. East Germany-China.
- b. Huettmann is working on an 800 W short wave transmitter for ships or land use. This has a detachable (absetzbar) antenna unit.
- c. W. Grimm is to develop a receiver that can be used for single sideband operation. Work on this has not yet started.

#### 8. 1953 tasks from the State Planning Commission

Some tasks have now reached the works. These include:

- a. Decca work - see para 2 above.
- b. Design and building of a 10 kw VHF transmitter for radio broadcasting purposes. This is for Poland.
- c. Design and construction of a 10 kw television transmitter for domestic use.
- d. Some test instruments to be made for Zwilling.

#### 9. Visit of a Czech delegation: D/F work

- a. In mid-April 1953, two unidentified Czech civilians (believed to have come from Czechoslovakia rather than from a permanent local trade delegation) visited the works. They were interested in D/F equipment.
- b. They were particularly interested in Koepenick's work on a goniometer equipment based on Telefunken's Telagon, which Telefunken brought out in 1949 or 1950. Koepenick is making a fairly exact copy of it. It has a crossed frame aerial. It is particularly suitable for use on ships, e.g. with Funkfeuer.
- c. Koepenick has been working on this Telagon copy for more than a year. The goniometer work is finished. A receiver must now be built.
- d. One sample of the Telagon copy is to be built first; series production has not yet been settled.
- e. The Rahmenpeiler (frame direction finder) formerly designed by Funkwerk Koepenick, is not now being produced in series.
- f. The Czechs learned all the above facts but did not place any orders.

#### 10. Decimeter or centimeter work

The only work of this sort known to be going on in Funkwerk Koepenick is:

- a. repair of decimeter communication sets.
- b. Dr. Erich Schuettloeffel is testing some 6 m. antennas at a scale of 1:10, using 60 cms test models.

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Senftenberg is unknown as the site of any electronic work.<sup>1</sup> Zwoenitz is the site of an RFT Messgeraetewerk, but nothing is known of the transfer of a centimeter department to Koepenick.

#### 11. Material shortages

- a. In April 1953, particular difficulties were caused by shortage of silver, needed for coaxial line (Hohlrohrleitung), resonant circuits (Schwingkreise), and coils (Spulen).
- b. Nonferrous metals are also particularly short. The works has to produce 2 tons of nonferrous scrap every month in order to get new deliveries of nonferrous metals. One plant official has a full-time job ensuring that the 2 tons is collected.
- c. The material supply situation is generally worse than it was a year ago, in early 1952. The standardization of many parts since 1952 is also noticeable. Where it used to be possible, for example, to procure resistances in a great variety of sizes and shapes for each ohm value, it is now possible to get it in only one or two formats.

#### 12. Politics

The workers at Funkwerk Koepenick are not subjected to great political pressure. They are very free compared to those at other plants. There is no compulsory political schooling or attendance at lectures. There cannot even be said to be any really effective moral compulsion. Nor is it compulsory to belong to the trade union organization (FDGB). Workers are invited to the political lectures which are often given in the Cultural Room and are encouraged to join the FDGB.

#### 13. New building work

The new building on the Funkwerk site - for clubrooms and expansion of various production departments and housing of Werk II - is now held up by the nature of the soil. It has been found to be of very loose and shifting sand.

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